## Climate Change and Human Health Literature Portal



## Variability of E. coli density and sources in an urban watershed

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#### Abstract:

The objective of this study was to characterize the variability of Escherichia coli density and sources in an urban watershed, particularly to focus on the influences of weather and land use. E. coli as a microbial indicator was measured at fourteen sites in four wet weather events and four dry weather conditions in the upper Blackstone River watershed. The sources of E. coli were identified by ribotyping. The results showed that wet weather led to sharp increases of E. coli densities. Interestingly, an intense storm of short duration led to a higher E. coli density than a moderate storm of long duration (p 30% of the total sources), while wildlife sources were dominant in open land and forest zones (54%). The findings provide useful information for developing optimal management strategies aimed at reducing the level of pathogens in urban watersheds.

Source: http://dx.doi.org/10.2166/wh.2010.063

### **Resource Description**

#### Exposure: M

weather or climate related pathway by which climate change affects health

Precipitation

Geographic Feature:

resource focuses on specific type of geography

Urban

Geographic Location: M

resource focuses on specific location

**United States** 

Health Impact: M

specification of health effect or disease related to climate change exposure

Infectious Disease

Infectious Disease: Foodborne/Waterborne Disease

Foodborne/Waterborne Disease: E. coli

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Resource Type:

format or standard characteristic of resource

Research Article

Timescale: M

time period studied

Time Scale Unspecified